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09/711,325	11/13/2000	Robert Allan Unger	50P4201	6874

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EXAMINER

NALEVANKO, CHRISTOPHER R

ART UNIT PAPER NUMBER

2611

DATE MAILED: 06/16/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/711,325

Applicant(s)

UNGER, ROBERT ALLAN

Examiner

Christopher R Nalevanko

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

1. In response to the Applicant's request for verification of the subject matter in the provisional patent application 60/170,548, the Examiner has verified that all relevant subject matter regarding the previous and subsequent Office Actions is present in the provisional application 60/170,548 of Bahraini. Therefore, the effective filing date of Bahraini for rejections purposes is Dec. 14, 1999.
2. Applicant's arguments filed 06/25/2004 have been fully considered but they are not persuasive. Applicant argues, "Consequently, the Action makes reference to the teachings of Bahraini. However, Bahraini merely states that the set-top box "may scan a range of frequencies for the OOB channel." (Para. 0009). Bahraini, like Jerding, does not teach or suggest that it is a programming tuner, separate from another control channel tuner, that is performing the scan of frequencies for a control channel" (page 12 lines 4-8). Jerding clearly shows a control channel tuner, or out-of-band tuner (page 2 section 0022), and a programming tuner (page 2 section 0022). Jerding also shows a processor to control the tuners (page 2 section 0022). The only limitation that is not shown by Jerding is the programming tuner scanning for a control channel. Bahraini clearly shows scanning available frequencies for a control channel (page 1 sections 0008-0011). Furthermore, Bahraini uses the word "tune," denoting the use of a tuner (page 1 section 0010). Bahraini is merely used to show that scanning a frequency range for a control channel is well known and expected in the art. Jerding is used to show multiple tuners for receiving different frequencies. Hence, it would have been obvious to one of ordinary skill in the

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art at the time the invention was made to modify Jerding with the ability to scan for frequencies as in Bahraini in order to allow the set-top box to find the desired communications channel.

3. Applicant's arguments filed 03/25/2004 have been fully considered but they are not persuasive. Applicant argues, "In contrast, the cited combination of prior art fails to teach or suggest that a first tuner, a programming tuner, identifies frequencies carrying an active signal, while a second tuner, a control channel tuner, retunes said frequencies to locate a control channel. The prior art fails to explain how or where the prior art teaches this coordinated search for a control channel employing two different tuners as claimed" (page 14 lines 3-7). Jerding clearly shows the use of two tuners, a control channel tuner, or out-of-band tuner (page 2 section 0022), and a programming tuner (page 2 section 0022). Furthermore, since Jerding specifically states that one of the tuners is for a control channel, this tuner must locate an active signal, or control channel. The only aspect that is not described in Jerding is the actual scanning process of finding the active frequencies. Bahraini is used to teach the scanning for active frequencies. Bahraini shows controlling the tuner to tune frequencies in the frequency band to identify active signals and tuning the tuner to the control channel (page 1 sections 0007-0010). As stated before, since Jerding shows a specific control channel tuner, it is inherent that this tuner must acquire a control channel from active frequencies. Also, Bahraini clearly shows scanning for active frequencies (page 1 sections 0007-0010). As stated above, Jerding is used to show the multiple tuner configuration. Bahraini is merely used to show the scanning method used to find a control channel, which could be used by any tuner to

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find a control frequency. Furthermore, there is nothing in the limitations regarding "re-tuning" or "coordinated searching" of the two tuners.

4. Applicant's arguments filed 03/25/2004 have been fully considered but they are not persuasive. Regarding the Official Notice, the Examiner maintains his assertion that it is well known and expected in the art to split up a task between plural, but similar, components to facilitate processing and speed up computational calculations. This method is used widely in all types of systems to enable a process to complete a task more quickly. Not only is this used widely in the electronic art, but it is well known and expected that splitting up a task into smaller portions is advantageous to the overall efficiency of the process. An example of this includes using multiple processors in a computer system to divide instructions. Furthermore, the Applicant has not requested the Examiner to provide additional art supporting the Official Notice, therefore the argument is moot.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 1, 3-9, and 11-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jerding et al in further view of Bahraini.

Regarding Claim 1, Jerding shows a set-top unit for connection to a cable television system comprising a control tuner (or out-of-band tuner), a programming tuner (or in-band tuner) (page 1 section 0003, page 2 sections 0022-0024), and a processor for controlling the tuners (fig. 2 item 24, page 2 section 0024, 0025). Jerding fails to show that the programming tuner scans frequencies to locate a control channel. Bahraini does show scanning frequencies to find a control channel (page 1 sections 0008-0009). Bahraini shows a tuner that can scan in-band and out-of-band signals to find a control channel to download application codes. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Jerding with the ability to scan for frequencies as in Bahraini in order to allow the set-top box to find the desired communications channel.

Regarding Claim 3, Bahraini shows controlling the tuner to tune frequencies in the frequency band to identify active signals and tuning the tuner to the control channel (page 1 sections 0007-0010). Furthermore, since Jerding shows a dedicated control tuner, it is inherent that this tuner selects an active signal for the control channel.

Regarding Claim 4, Bahraini shows scanning a multitude of channels, including locating alternate channels if several channels fail to work (page 1 sections 0008-0010).

Regarding Claim 5, Jerding shows being able to control multiple tuners with a processor (page 2 sections 0022-0024) and Bahraini shows the ability to scan frequencies for a control channel (page 1 sections 0008-0010). Both Jerding and Bahraini fail to show splitting up the frequency scanning between two tuners. Official Notice is given that it is well known and expected in the art to split up a task between plural, but similar,

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components to facilitate processing and speed up computational calculations. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Jerding and Bahraini with the ability to scan separate frequencies with two tuners in order to speed up the scanning process in order to find a control channel.

Regarding Claim 6, Jerding shows being able to control multiple tuners with a processor (page 2 sections 0022-0024) and Bahraini shows the ability to scan frequencies for a control channel (page 1 sections 0008-0010). Both Jerding and Bahraini fail to show splitting up the frequency scanning between two tuners. Official Notice is given that it is well known and expected in the art to split up a task between plural, but similar, components to facilitate processing and speed up computational calculations. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Jerding and Bahraini with the ability to scan separate frequencies with two tuners in order to speed up the scanning process in order to find a control channel.

Regarding Claim 7, Jerding shows being able to control multiple tuners with a processor (page 2 sections 0022-0024) and Bahraini shows the ability to scan frequencies for a control channel (page 1 sections 0008-0010). Furthermore, Jerding shows a programming tuner (in-band tuner) and control channel tuner (out-of-band tuner). Both Jerding and Bahraini fail to show splitting up the frequency scanning between tuners and a second programming tuner. Official Notice is given that it is well known and expected in the art to split up a task between plural, but similar, components to facilitate processing

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and speed up computational calculations. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Jerding and Bahraini with the ability to scan separate frequencies with two tuners in order to speed up the scanning process in order to find a control channel. Also, Official Notice is given that it is well known and expected in the art to use more than one programming tuner, for such purpose as picture-in-picture. Therefore, it would have been obvious to one of ordinary skill in the art to provide another tuner in order to increase the viewing options and functionality, as well as provide another tuner to scan frequencies to speed up the scanning process.

Regarding Claim 8, Bahraini shows the ability to scan multiple frequencies and to determine whether the frequency is the correct control channel by locking onto the channel (page 1 sections 0009-0011). Since the processor controls the tuner, the process is inherently controlled by the tuner.

Regarding Claim 9, the limitations of the Claim have been addressed with regards to Claim 1.

Regarding Claim 11, the limitations of the Claim have been addressed with regards to Claim 3.

Regarding Claim 12, the limitations of the Claim have been addressed with regards to Claim 4.

Regarding Claim 13, the limitations of the Claim have been addressed with regards to Claim 5.



Regarding Claim 14, the limitations of the Claim have been addressed with regards to Claim 6.

Regarding Claim 15, the limitations of the Claim have been addressed with regards to Claim 7.

Regarding Claim 16, the limitations of the Claim have been addressed with regards to Claim 8.

Regarding Claim 17, the limitations of the Claim have been addressed with regards to Claim 1.

Regarding Claim 18, the limitations of the Claim have been addressed with regards to Claim 3.

Regarding Claim 19, the limitations of the Claim have been addressed with regards to Claim 6.

Regarding Claim 20, Both Jerding (page 2 sections 0023-0024) and Bahraini (page 1 sections 0005-0008) show using computer-readable instructions stored in a medium for recording computer-readable instructions in a set-top unit. All further limitations of the claim have been discussed with regards to Claim 1.

Regarding Claim 21, the limitations of the Claim have been addressed with regards to Claim 3.

Regarding Claim 22, the limitations of the Claim have been addressed with regards to Claim 6.

Regarding Claim 23, Jerding shows a set-top unit for connection to a cable television system comprising a control tuner (or out-of-band tuner), a programming tuner

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(or in-band tuner) (page 1 section 0003, page 2 sections 0022-0024), and a processor for controlling the tuners (fig. 2 item 24, page 2 section 0024, 0025). Jerding fails to show that the programming tuner scans frequencies to locate a control channel. Bahraini does show scanning frequencies to find a control channel (page 1 sections 0008-0009).

Bahraini shows a tuner that can scan in-band and out-of-band signals to find a control channel to download application codes. Furthermore, the system of Bahraini could be used with any tuner to provide a scanning sequence to find appropriate frequencies.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Jerding with the ability to scan for frequencies as in Bahraini in order to allow the set-top box to find the desired communications channel.

Although Jerding shows a processor that controls both a programming tuner and control channel tuner, both Jerding and Bahraini fail to specifically state controlling the tuners concurrently. Official Notice is given that it is well known and expected in the art to control two tuners at the same time. This allows the system to perform multiple tasks without the need to wait for instructions to be completed by one of the tuners. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jerding and Bahraini with the ability to control both of the tuners at the same time so that the system could access both tuners independently with individual instruction sets.

Regarding Claim 25, Bahraini shows controlling the tuner to tune frequencies in the frequency band to identify active signals and tuning the tuner to the control channel

(page 1 sections 0007-0010). Furthermore, since Jerding shows a dedicated control tuner, it is inherent that this tuner selects an active signal for the control channel.

Regarding Claim 26, Bahraini shows scanning a multitude of channels, including locating alternate channels if several channels fail to work (page 1 sections 0008-0010).

Regarding Claim 27, Jerding shows being able to control multiple tuners with a processor (page 2 sections 0022-0024) and Bahraini shows the ability to scan frequencies for a control channel (page 1 sections 0008-0010). Both Jerding and Bahraini fail to show splitting up the frequency scanning between two tuners. Official Notice is given that it is well known and expected in the art to split up a task between plural, but similar, components to facilitate processing and speed up computational calculations. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Jerding and Bahraini with the ability to scan separate frequencies with two tuners in order to speed up the scanning process in order to find a control channel.

Regarding Claim 28, Jerding shows a set-top unit for connection to a cable television system comprising a control tuner (or out-of-band tuner), a programming tuner (or in-band tuner) (page 1 section 0003, page 2 sections 0022-0024), and a processor for controlling the tuners (fig. 2 item 24, page 2 section 0024, 0025). Jerding fails to show that the programming tuner scans frequencies to locate a control channel. Bahraini does show scanning frequencies to find a control channel (page 1 sections 0008-0009). Bahraini shows a tuner that can scan in-band and out-of-band signals to find a control channel to download application codes. Furthermore, the system of Bahraini could be

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used with any tuner to provide a scanning sequence to find appropriate frequencies.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Jerding with the ability to scan for frequencies as in Bahraini in order to allow the set-top box to find the desired communications channel.

Although Jerding shows a processor that controls both a programming tuner and control channel tuner, both Jerding and Bahraini fail to specifically state controlling the tuners concurrently. Official Notice is given that it is well known and expected in the art to control two tuners at the same time. This allows the system to perform multiple tasks without the need to wait for instructions to be completed by one of the tuners. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jerding and Bahraini with the ability to control both of the tuners at the same time so that the system could access both tuners independently with individual instruction sets.

Also, although Jerding shows the use of two tuners (page 2 section 0022), Jerding and Bahraini fail to show using two programming tuners. Official Notice is given that it is well known and expected in the art to use two programming tuners. This facilitates the ability to view multiple channels concurrently, such as picture-in-picture. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Jerding and Bahraini with two programming tuners so that a user could watch or access multiple programming streams at one time.

Regarding Claim 29, the limitations have been discussed with regards to Claim 5.

6. Claims 2 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jerding et al in further view of Bahraini and Chiu et al.

Regarding Claim 2, Bahraini shows storing frequencies of the channel in a memory (page 1 section 009), but both Jerding and Bahraini fail to show that the frequency is the last known. Chiu shows using the last known frequency in the memory (col. 26 lines 25-28). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Jerding and Bahraini with the ability to use the last known frequency to calibrate the tuner so that the system could potential tune to the correct frequency without the need for scanning other channels.

Regarding Claim 10, the limitations of the Claim have been addressed with regards to Claim 2.

Regarding Claim 24, the limitations of the Claim have been addressed with regards to Claim 2.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R Nalevanko whose telephone number is 703-305-8093. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

Christopher Nalevanko  
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VIVEK SRIVASTAVA  
PRIMARY EXAMINER